AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Fig. 4. This sheet, which includes Fig. 4, replaces the original sheet including Fig. 4. In Fig. 4, the various block diagrams (e.g., 32 and 41-46) have been clarified.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

REMARKS/ARGUMENTS

Reconsideration and allowance of this application are respectfully requested. Currently, claims 1-10 are pending in this application.

Information Disclosure Statement (IDS):

With respect to Applicant's IDS filed March 21, 2006, Applicant assumes that all of the cited references have been considered – even though the returned Form PTO/SB/08a was not labeled "ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH" like the returned Form PTO/SB/08a of the IDS filed October 4, 2006. Applicant requests clarification if this assumption is incorrect.

Rejection under 35 U.S.C. §102:

Claims 1-10 were rejected under 35 U.S.C. §102 as allegedly being anticipated by Rosenberg et al. (U.S. '373, hereinafter "Rosenberg"). Applicant traverses this rejection.

Anticipation under Section 102 of the Patent Act requires that a prior art reference disclose every claim element of the claimed invention. See, e.g., *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1574 (Fed. Cir. 1986). Rosenberg fails to disclose every claim element of the claimed invention. For example, Rosenberg fails to disclose the following limitations of independent claim 7 and its dependents (similar comments apply to claim 1 and its dependents):

"deriving a model of the space in which directional forces are being applied and storing data defining said model,

deriving from the historic positional data and the data defining the model an anticipated position and

generating output signals defining force and direction to move the haptic output device towards said anticipated position and

correcting for differences between the anticipated position and the transmitted position on receipt of subsequent positional data."

Page 3 of the Office Action alleges that col. 48, lines 37-64 of Rosenberg discloses "deriving a model of the space in which directional forces are being applied and storing data defining said model" as required by claim 7. Applicant disagrees with this allegation. Col. 48, lines 37-64 of Rosenberg states the following:

> In step 458, process 388 adds the force value computed in step 456 to the total force for the axis initialized in step 452. In alternate embodiments, process 388 may limit the total force value or a portion of the total force value computed in step 458. For example, if process 388 is keeping track of which force values are condition forces and which force values are overlay forces, the process 388 can limit the sum total of condition forces to a predetermined percentage of maximum actuator force output, such as 70% of maximum output. This allows some of the available force range to be used for overlay forces, such as button jolts, vibrations, etc. that may applied on top of the condition forces. This limiting is preferably performed after all condition forces that are in effect have been computed, so that overlay forces can be applied over the sum of all condition forces. Other forces can be limited in alternate embodiments.
>
> In next step 460, process 388 determines if another reflex process needs to be executed for the currently selected axis. This would be true if additional host commands are in effect for which forces have not yet been computed and added to the total force. If so, the process returns to step 456 to check the force parameters, execute another reflex process to compute a force, and add that force to the total force. If, in step 460, there are no more reflex processes to be executed for the selected axis, then total force represents all forces in effect on the selected axis. Total force for the selected axis is then stored in memory 27 in step 462.

The above-reproduced portion of Rosenberg describes how force values may be computed for application to the axis or degree of freedom of the haptic interface. There is nothing in this portion which relates in the least to the modelling of the operational space, aside

from the coincidence of the word "stored" in column 48, line 64, with the storage of the modelling data required by claim 7. In Rosenberg, the need for storage arises due to the execution of processes of the microprocessor local to the haptic interface parallel with the host computer's activities. The local microprocessor and the host computer do work in parallel with each other, but the microprocessor is nowhere described to have "derived" a data model of the host computer, for example.

Also, page 3 of the Office Action alleges that col. 31, lines 56-63 and col. 37, lines 60-67 of Rosenberg disclose "deriving from the historic positional data and the data defining the model an anticipated position and generating output signals defining force and direction to move the haptic output device towards said anticipated position and *correcting for differences between the anticipated position and the transmitted position on receipt of subsequent positional data* (emphasis added)," as required by claim 7. Applicant disagrees with this allegation. Col. 31, lines 56-63 and col. 37, lines 60-67 of Rosenberg state the following:

> Command parameters 304 are values or indicators provided by the host computer 12 which customize and/or modify the type of force indicated by command portion 304. Many of the commands use magnitude, duration, or direction command parameters. Some commands include a style parameter which often modifies a force's direction. Other particular command parameters are provided for specific forces, as described in detail below.
>
> * * * * *
>
> A vector force is a general force having a magnitude and direction. Refer to FIG. 12 for a polar representation of the vector force. Most position control sensations will be generated by the programmer/developer using a vector force command and appropriate instructions and programming constructs. A duration parameter is typically not needed since the host 12 or microprocessor 26 can terminate or modify the force based on user object motions, not time.

Nothing in the above-reproduced portions of Rosenberg disclose correcting for differences between the anticipated position and the transmitted position on receipt of subsequent positional data. For example, nothing is described what the "differences" relate to: in the invention of claim 7 this is between the anticipated position and the actual position the haptics device should move to, per transmitted positional data received subsequently. There is also no any disclosure that, in the first place, the anticipated position is specifically derived from historic positional data and the modelled space. A mere recitation of the word "modify" in Rosenberg simply does not disclose or suggest the claimed *correcting for differences between the anticipated position and the transmitted position on receipt of subsequent positional data.*

As noted above, Applicant submits that independent claim 1 is distinguishable over Rosenberg for reasons similar to independent claim 7. Additionally, Rosenberg fails to disclose the use of packet data which defines a position measured at one location for transmission to the current location. This is because Rosenberg's system, in which components are connected by a bus link, does not require packetized data.

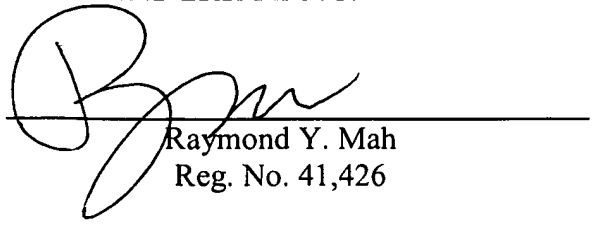
Accordingly, Applicant respectfully requests that the above noted rejection under 35 U.S.C. §102 be withdrawn.

Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 

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